

What is claimed is:

1 1. A timing device comprising a carrier having at least one code track of a group
2 and, overlapping therewith, at least one code marking, which is scanned by a sensor unit to
3 produce signals, wherein the at least one code track has a different optical density compared to
4 the first group, and wherein the code markings within a code track overlap.

1 2. The timing device according to claim 1, wherein the first group and additional
2 groups of code markings are scanned by the same sensor-emitter-unit.

1 3. The timing device according to claim 2, wherein the code markings of the first
2 group overlap with those of the additional groups within the code track.

1 4. The timing device according to claim 3, wherein the sensor unit comprises a
2 light source and a light sensitive sensing device

1 5. The timing device according to claim 4, wherein in the sensor unit a two-
2 channel evaluation of the optical signals is performed.

1 6. The timing device according to one of the preceding claims, wherein the first
2 group of code markings has a predetermined optical density and the additional groups of code
3 markings have optical densities different from that of the first group, with the code markings
4 having a detectable grading for generating control or position signals.

1 7. The timing device according to claim 6, wherein the groups of code markings
2 have a predefined difference in their optical density.

1 8. The timing device according to claim 7, wherein the optical density corresponds
2 to different gray levels which can span a range between light-blocking and almost complete
3 transparency.

1 9. The timing device according to claim 8, wherein the carrier of the timing device
2 is made of a reflecting material and the code markings have a different degree of reflectivity.

1 10. The timing device according to claims 9, wherein the code markings of the first
2 group have a mutually constant spacing from one another, whereas the code markings of a second
3 and subsequent group are distributed over the code track with an arbitrary spacing and are
4 forming segments on the timing disk or the timing ruler for controlling different functions.

1 11. The timing device according to claim 10, wherein the code markings of the
2 second and subsequent group are used for controlling one of a start and an end position, for one
3 of calibration purposes and for absolute positioning.

1 12. A positioning device, comprising a timing device with a carrier having a first
2 group of code markings in at least one code track, with the code markings being scanned by at
3 least one sensor unit for producing a signal, and comprising a signal processing device, the
4 signal processing device converts the sensor signal into a control signal and is connected after the
5 sensor unit.

1 13. The timing device according to claim 4, wherein the light source is a LED.

1 14. The timing device according to claim 4, wherein the light sensitive sensing
2 device is at least one photo transistor.

1 15. The timing device according to claim 5, wherein in the sensor unit performs
2 a multi-channel evaluation of the optical signals is performed.